

EDUCATION:

University of California, Los Angeles

B.S. Computer Science and Engineering

September 2018–June 2022 (expected)

3.97 Major GPA

Relevant Coursework

- Programming Languages — ML, Scheme, Prolog, Java
- Computer Networks — HTTP, TCP and UDP, Network Layers and Protocol Stacks
- Algorithms — Greedy, Divide and Conquer, DP, Graphs
- Operating Systems — Processes, Memory, Concurrency, File Systems and Storage
- Computer Architecture — Machine and Assembly Level Organization, Optimization, Parallelism

EXPERIENCE:

Walmart Labs

Summer 2020

Software Engineering Intern — Cart and Checkout Platform Team

Remote

- Created the Dev Assistant, a cross-browser plugin designed to address common Walmart development hurdles and to facilitate debugging React and Redux apps.
 - Gained external access to Redux stores by performing traversals on DOM element and React Fiber node trees.
 - Recorded Redux store state history as well as dispatched actions in a *replayable* timeline.
 - Spoofed Redux actions and force set store state without Redux DevTools or requiring source code changes.
 - Utilized browser extension architecture to handle environment specific configs like cookies in a per-tab manner, and intercept app cloud configuration values and analytic beacons on fire.
 - Displayed information in tabs in a user-friendly and organized popup interface implemented in React.
 - Supported auto-updating and easy installation of plugin through Bash scripts and Cron jobs.
- Revamped an analytics app with D3.js to organize Splunk logs in an interactive timeline showing nested events..

DevX

Fall 2019–Summer 2020

Frontend Lead

UCLA

- Lead the frontend team for the **Twain** project, a “smart-scheduler” chrome extension integrated with Google Calendar designed to optimize and schedule task lists with scheduling algorithms.
 - Created and organized the backbone structure on the frontend side and open-sourced the reusable, complex UI components such as time and date pickers that were implemented in React without UI libraries.
 - Refined the backtracking algorithm used in Node.js backend to place optimal tasks in free calendar slots.

PROJECTS:

Terreform (JavaScript, React, CSS)

Fall 2019

UCLA Creative Labs

Los Angeles

- A donation website for nonprofits fighting climate change featuring interactive environments rendered using ThreeJS that evolve over time as users donate.
 - Integrated browser events, React component rendering, and a ThreeJS container together to create dynamic, animated biomes where every donation corresponds to an interactive client object in the environment.

Restock (Python, Flask, JavaScript, React, SQL, Heroku)

Summer 2019

Side Project

Los Angeles

- A full-stack, stock trading simulator website employing websockets for instant updates.
 - Users can simulate transactions, track stocks, and view users on a leaderboard or stocks on a dashboard.
 - Implemented backend with Flask and SQLAlchemy as an ORM database technology.
 - Integrated websocket capabilities with SocketIO to push real-time notifications to all clients.
 - Designed an interface to showcase graphed analytics and filterable data using React and Recharts.
 - Optimized server performance with a hierarchical schema, reducing database loads and socket updates.

Genome Sequencer (C++)

Spring 2019

UCLA

Los Angeles

- A genome sequencer designed to efficiently parse through, organize, and analyze hundreds of thousands of DNA base-pairs by building up a trie data structure with string keys.
 - Implemented efficient recursive algorithms to traverse the trie and locate exact sequence matches, near-identical matches to account for possible mutations, and genomes related by a certain percentage.

SKILLS:

- Languages — JavaScript, C/C++, Java, Python, Bash, CSS, SQL
- Frameworks/Tools — React/Redux, Gatsby.js, D3.js, Node.js, Flask, Git, UNIX, NumPy
- Hardware — Arduino Programming, Circuitry and Soldering